

78
27

What is claimed is:

1. An immunotoxin, comprising a mutant diphtheria toxin moiety linked to a single chain variable region antibody which routes by the anti-CD3 pathway, or derivatives thereof.
2. The immunotoxin of claim 1, wherein the antibody is divalent.
3. The immunotoxin of claim 1, wherein the immunotoxin is a fusion protein.
4. The immunotoxin of claim 1, wherein the antibody comprises the UCHT1 VL^h region.
5. The immunotoxin of claim 4, wherein the antibody comprises human CH₂ and CH₃ regions.
6. The immunotoxin of claim 5, wherein the antibody is divalent scUCHT1.
7. The immunotoxin of claim 6, wherein the immunotoxin is a fusion protein.
8. The immunotoxin of claim 7, wherein the immunotoxin is is scUCHT1-DT390.
9. A method of treating an autoimmune disease in an animal comprising administering to the animal the immunotoxin of claim 1, or derivatives thereof, under conditions such that the autoimmune disease is treated.

0038955-097399

- [illegible]

19. The method of claim 1 of diphtheria toxin is DT390, the non-toxic mutant

20. The method of claim 17, wherein antibody moiety

scUCHT1:

20. The method of claim 17, wherein
scUCHT1:

Wibody moiety

add B \rightarrow

[Illegible handwritten notes]